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REMARKS/ARGUMENTS

This Response is responsive to the Office Action mailed on June 06, 2006. In the Office action claims 1-8, 10-29, and 31 were rejected.

Claims 1-3, 10-14, 20, 21, 23-29, and 31 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Zanelli et al. (U.S. Patent No. 6, 515, 657, hereinafter "Zanelli") and McGary (U.S. Patent No. 5, 521, 634, hereinafter "McGary"). Claims 4 and 7 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Zanelli amd McGary further in view of Scorse et al. (U.S. Patent No. 5, 128, 776, hereinafter "Scorse"). Claims 5, 6, 8 and 22 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Zanelli and McGary and further in view of Ransford et al. (EP 479,563 A2, hereinafter "Ransford"). Claims 15 and 16 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Zanelli and McGary further in view of Flower et al. (U.S. Patent No. 6,351,663, hereinafter "Flower"). Claims 17 and 18 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Zanelli and McGary and further in view of Chui et al. (U.S. Patent No. 5, 841, 473, hereinafter "Chui"). Claim 19 was rejected under 35 U.S.C. §103 (a) as being unpatentable over Zanelli and McGary and Chui and further in view of Reinsch (U.S. Patent No. 5, 134, 661, hereinafter "Reinsch").

Claims 1-8, 10-29, and 31 remain pending in the application.

Claims define allowable subject matter over the applied art

The independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31 have been rejected under 103 (a) as being unpatentable at least in view of Zanelli and McGary. Applicant has carefully reviewed the applied references, and respectfully traverses the rejection of independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31, under 35 U.S.C. §103 (a) as being unpatenatable over Zanelli and McGary.

The burden of establishing a prima facie case of obviousness falls on the Examiner. Ex parte Wolters and Kuypers, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a prima facie case, the Examiner must not only show that the combination includes all of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. Ex parte Clapp, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than

the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Zanelli discloses an ultrasound imaging system that superimposes sectional views created from volumetric ultrasound data and the location data for an intervention device, such as a catheter. The position of an interventional medical device may be shown, in one or more views, relative to organs and tissues within a body as the interventional device is moved. The interventional device positional data is updated continuously and is superimposed on tissue images that may be updated less frequently, resulting in real-time or near real-time images of the interventional device relative to the tissues (*see*, Abstract). Thus the objective in Zanelli is to continuously monitor the location of the catheter relative to the tissues. It uses the location co-ordinates of the catheter and superimposes this information on the regular tissue image. Zanelli does not discuss the "selecting a portion of an image in a span of interest obtained from an acquired imaging sequence" as recited in the independent claims. Zanelli obtains positional location data for the catheter and does not "select a portion of an image" as recited in the independent claims. There is no disclosure, teaching or suggestion in Zanelli about the selection of a portion of image as recited in the independent claims.

The Office Action refers to Fig. 6 and column 10, lines 21-52 as a teaching for selecting a portion of image and states that catheter is the selected portion. However, lines 21-52 merely state that catheter location data is superimposed on projected images of the tissue. It further states a method of obtaining the catheter location. Applicant respectfully submits that the catheter location or the catheter image cannot be construed as the selected portion of the image as recited in the independent claims of the application, since the location of the catheter is not "selected", in contrast, the location is obtained and continuously updated in Zanelli. There is no further processing of the catheter location once it is obtained, further processing in Zanelli is done on the projected image of the tissue where the catheter location is superimposed. Thus the steps of applying lossless compression to the portion of image and decompression are completely absent from Zanelli. Once the catheter location is obtained in Zanelli, it is superimposed as it is on the projected image of the tissue, with no further processing of catheter positional data. There is in fact no disclosure, teaching or suggestion in Zanelli about a need to compress the projection image data. Zanelli is merely concerned with locating the position of catheter with respect to the imaged tissue and not with image transmission as such. Office Action has further referred to column 6, lines 9-11 as a teaching for selecting a portion of image in time and space sequence as recited in independent claims. However, firstly, the image I (x,y,z,t) as described in the abovementioned lines, merely indicates a dynamic data for the entire projection image and not for any selected portion of image, and secondly nowhere does Zanelli disclose, teach or suggest that this selection is done in a "span of interest" as recited in independent claims.

Since the imaging objective is entirely different in Zanelli, any mapping of the technique disclosed in Zanelli will not yield the recited claims of the Applicant's application.

McGary on the other hand describes an image transmission system and method to automatically reduce the size of digital data signals transmitted from visual sensors. With respect to compression, McGary specifically discloses compression for **nontarget portions** of the visual image. (See, Abstract). Since McGary compresses "nontarget portion" of the image, it actually teaches away from the claim recitations of applying compression to the selected portion of image. Thus no combination of Zanelli with McGary will yield the Applicant's invention as recited in the independent claims.

Applicant further states that in addition to the absence of a teaching for the above referenced claim recitations of independent claims, there is **no motivation** in Zanelli or McGary to combine the two references. None of the references recognize any need to compress data in selected portion of an image for transmission. According to MPEP 2143.01, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the **prior art also suggests the desirability of the combination.** That is clearly not the case here.

Applicant respectfully submits that irrespective of what the other references of Scorse, Ransford, Flower, Chui, and Reinsch, which have been used in conjunction with Zanelli and McGary to reject select independent claims and dependent claims under 35 U.S.C. 103 (a), disclose, teach or suggest, since the primary references of Zanelli and McGary do not teach, disclose or suggest the specific claims recitations of independent claims as discussed above, any further combination with Zanelli and McGary will still not yield the above claim recitations of the Applicant's application.

Thus the Applicant respectfully submits that the independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31, are patentable under 35 U.S.C. §103 and therefore, are allowable. Claims 2-8 and 10-11 depend directly or indirectly from claim 1, claim 13 depends from claim 14, claim 16 depends from claim 15, claims 18, 19 depend from claim 17, claim 21-22 depend from claim 20, and claims 25-29 depend from claim 24. These dependent claims are similarly allowable.

In view of the foregoing remarks, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. §103 (a).

Summary

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In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

By _____

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